REMARKS

Entry of the foregoing, re-examination and reconsideration of the subject matter identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.116, and in light of the remarks which follow, are respectfully requested.

Claims 1, 3 and 4 are pending in the application and are under consideration, as Claim 2 has been canceled above.

At the outset Applicants' representative thank Examiners Patterson and Pyon for their time and courteous interview conducted on November 27, 2001. The Interview Summary accurately reflects the contents of the interview.

By the foregoing amendments, Claim 2 has been canceled and the subject-matter thereof has been incorporated into independent Claim 1. In addition, Claim 1 has been revised to provide the proper Markush terminology. It is submitted that these amendments do not raise any new issues requiring a further search. Thus, entry thereof is respectfully requested.

Claim 1 stands rejected under 35 U.S.C. §112, second paragraph, for the reason set forth at page 2 of the Official Action. This rejection has been obviated, at least in part, by deleting the phrase "soft." In particular, the Examiner asserts that the terms "soft" and "rigid" are allegedly indefinite for not providing a standard for ascertaining the requisite degrees. As discussed during the interview, these terms are merely descriptive and are not intended to limit the claims in any manner. Nonetheless, in the interest of expediting

prosecution, the Examiner's attention is directed to the information obtained from the Manufacturer's Safety Data Sheets ("MSDS") which is reproduced in the Table below.

TABLE		
The soft component:		
LDPE, ESCORENE LD270		
Melt flow rate	8.2 g/10 min	ASTM D1238 = cond 2.16 kg 190°C
Elongation at break	435%	dumbells based on ASTM D638
Tensile strength at break	11.6 MPa	dumbells based on ASTM D638
Tensile strength at yield	9.2 MPa	dumbells based on ASTM D368
Density	918 kg/m^3	
Source: Polymer Quality Data Sheet (1994), Exxon Chemical Hermeslaan 2, B-1831 Machelen, Belgium		
The stiff component:		
HDPE, HE8331		
Melt flow rate	0.2 g/10 min	ISO 1138 - cond 2.16 kg/190°C
Elongation at break	-	
Tensile strain at break	9%	
Tensile modulus	1250 MPa	
Tensile stress at yield	28 MPa	
Density	955 kg/m^3	
Source: Polyethylene BM 0586 (May 1995), High density polyethylene for flow molding, Borealis A/S, Lungby Hovedgade 96, DK-2800 Lyngby, Denmark.		

Thus, as shown in the Table, the characteristics of the low density polyethylene (the ductile component) indicate a strength at yield of 9.2 MPa, while the high density

polyethylene (i.e., the rigid component) is 28 MPa. Accordingly, it is submitted that the skilled artisan would readily ascertain the rigidity and ductile nature of the components recited in the claims. Withdrawal of this rejection is in order and it is respectfully requested.

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *DE* '611 (German Patent Document DE 195 11 611 A1) in view of *Nakagawa et al* (U.S. Patent No. 4,907,957). The claims, as amended, cannot be rejected on this basis.

The present invention relates to a bottle or similar container which is produced by a combined extrusion/blow molding process. Moreover, the invention relates to an extrusion/blow molding process, together with a granulate starting material for the production of a bottle or similar material. Some of the advantages associated with the present invention includes the production of extruded/blow molded bottles of plastic having a greatly reduced material weight, superior mechanical strength and rigidity. Hence, the bottles are easily and conveniently handled.

In accordance with the invention, and as set forth in independent Claim 1, an extruded/blow molded bottle having an extruded wall structure is provided. The bottle includes an intermediate layer of foamed plastic and outer, solid layers of plastic, wherein the plastic of the foamed intermediate layer is a mixture of a first, rigid polymer component being selected from the group consisting of high density polyethylene and high melt-strength polypropylene and a second ductile polymer component selected from

the group consisting of low density polyethylene and polypropylene. The mixing ratio of the first rigid polymer component to the second ductile polymeric component in the foamed plastic layer is between 1:3 and 3:1. The plastic of the outer, solid layers is the same as said rigid polymer component of the foamed intermediate layer, and all layers are produced through a coextrusion process.

DE '611 is directed to a plastic bottle which can be squeezed with one hand to eject a liquid product through an orifice formed of foamed plastic. Preferably, the foamed plastic is polyolefin, such as polypropylene or polyethylene or their copolymers, with 10-30% lower density than that of the non-foamed plastic. *See* the English Abstract.

Nakagawa et al relates to the manufacturing of a hollow product and in particular to a method and apparatus for manufacturing a hollow plastic product having an irregular structure, such as a projection which projects outwardly from the outer surface of the product. Column 1, lines 12-17.

As discussed during the interview, neither of the applied documents, alone or in combination, discloses a foamed intermediate layer, wherein the layer is a mixture of a rigid polymer component and a ductile polymer component, much less in the claimed ratio. As explained on page 3, line 11, et seq. of Applicants' Specification, the extruded/blow molded bottle of the present invention includes a foamed mixture of a rigid component which forms the skeleton or interstices in the foamed wall structure, while the ductile polymer forms a skin or wall between the above-mentioned skeleton or interstices.

Accordingly, a bottle of reduced weight and outstanding mechanical strength is manufactured.

On the other hand, *DE* '611 simply discloses a three layer bottle in which the intermediate foamed layer consists of only one polymer component (i.e., either polypropylene or polyethylene). *See* the English Abstract. Likewise, the intermediate layers disclosed in *Nakagawa et al* consist of one polymer component. *See* the materials tabulated at column 10, lines 20-25.

To this end, the motivation to combine the documents must stem from some teaching, suggestion or inference in the prior art as a whole, or from the knowledge generally available to one of ordinary skill in the art, and not from Applicants' disclosure. Ex parte Nesbit, 25 USPQ2d 1817, 1819 (BPAI 1992); In re Oeticker, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). The mere fact that the prior art can be modified does not make such modification obvious unless the prior art suggests the desirability of the modification. In re Gordon, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Thus, since both documents suggest a one polymer component system layer, one of ordinary skill would not have combined the disclosure of these documents in the manner suggested to arrive at the two component intermediary layer, absent Applicants' own disclosure. Accordingly, withdrawal of this rejection is respectfully requested.

In view of the foregoing, favorable consideration of the subject application on the merits is believed next in order, and is earnestly solicited.

If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned at his/her earliest convenience.

Respectfully submitted,

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Date: December 11, 2001

Attachment to Reply and Amendment Pursuant to 37 C.F.R. §1.116 dated December 11, 2001

Marked-up Claim 1.

Kindly cancel Claim 2, without prejudice or disclaimer.

Kindly amend Claim 1, as follows:

1. (Twice Amended) An extruded/blow molded bottle having an extruded wall structure comprising an intermediate layer of foamed plastic and outer, solid layers of plastic, wherein the plastic of the foamed intermediate layer is a mixture of a first, rigid polymer component being selected from the group consisting of [essentially comprising] high density polyethylene and high melt-strength polypropylene and a second ductile [(soft)] polymer component being selected from the group consisting of [essentially comprising] low density polyethylene and polypropylene, wherein the mixing ratio of the first rigid polymer component to the second ductile polymeric component in the foamed plastic layer is between 1:3 and 3:1, and said plastic of the outer, solid layers is the same as said rigid polymer component of the foamed intermediate layer and in that all layers are produced through a coextrusion process.